

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended): An electromechanical valve actuator for an internal combustion engines engine, comprising an electromagnet and a mobile magnetic plate coupled to a valve of the engine,

said electromagnet comprising a magnet in a magnetic circuit,

at least one stop being located between said magnet of said electromagnet and said mobile magnetic plate;

~~_____ said mobile magnetic plate configured to come into contact with said at least one stop to prevent contact between the plate and the electromagnet,~~

_____ wherein the at least one stop includes a plurality of stops and each of the plurality of stops is located on one of the electromagnet and the plate, the stops being arranged symmetrically in relation to an axis of translation of the plate, and

_____ the electromagnet comprises an E-shaped magnetic circuit, and at least one of the stops is located at an end of each of three branches that form the E-shaped magnetic circuit,

_____ so that an air gap is maintained between each end branch of the magnetic circuit of the electromagnet and the plate.

2. (Withdrawn – Currently amended): Actuator in accordance with claim 1, wherein ~~the stop at least one of the stops~~ is located essentially in the center of the contact surface between the electromagnet and the plate.

3. (Withdrawn – Currently amended): Actuator in accordance with claim 1 ~~or 2~~, wherein the at least one stop at an end of the center branch of the magnetic circuit is located on an axis that is collinear with an axis of translation of the plate.

4. (Canceled)

5. (Currently amended): Actuator in accordance with claim 1, wherein the ~~electromagnet comprises an E-shaped magnetic circuit, and the stop is located at an end of one of three essentially parallel branches that form the E-shaped magnetic circuit~~ are essentially parallel.

6. (Canceled)

7. (Previously presented): Actuator in accordance with claim 5, wherein the magnet is located on the surface of the one of the three essentially parallel branches of the E-shaped circuit, opposite the magnetic plate.

8. (Withdrawn): Actuator in accordance with claim 5, further comprising a second magnet, wherein the first and second magnets are located on a surface of the E-shaped circuit, and the stop is located between the first and second magnets.

9. (Previously presented): Internal combustion engine equipped with a electromechanical valve actuator for internal combustion engines, comprising a electromagnet and a mobile magnetic plate coming into contact with the electromagnet, wherein the actuator is according to claim 1.

10. (Currently amended): Actuator in accordance with claim 1, wherein ~~the stop~~ at least one of the stops comprises a material adapted to absorb energy.

11. (Currently amended): ~~An electromechanical valve actuator for an internal combustion engines, comprising an electromagnet and a mobile magnetic plate coupled to a valve of the engine;~~

~~—— said electromagnet comprising a magnet in a magnetic circuit,~~

~~—— at least one stop being located between said magnet of said electromagnet and said mobile magnetic plate,~~

~~—— said mobile magnetic plate configured to come into contact with said at least one stop to prevent contact between the plate and the electromagnet,~~

—~~Actuator in accordance with claim 1,~~ wherein a contact surface area of the mobile magnetic plate is smaller than a total surface area of the plate.

12. (Currently amended): An electromechanical valve actuator for an internal combustion engines according to claim 11, wherein ~~the stop~~ at least one of the stops is made of a magnetic material.

13. (Currently amended): An electromechanical valve actuator for an internal combustion engines according to claim 11, wherein ~~the stop~~ at least one of the stops is made of an elastomeric material.